

# VS-M8MS-M8MS/93B-0,5 - Network cable



1402448

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Network cable, Ethernet (100 Mbps), PROFINET (100 Mbps), EtherCAT® (100 Mbps), 4-position, PVC/PVC, green RAL 6018, Plug straight M8, coding: A / IP67, on Plug straight M8, coding: A / IP67, cable length: 0.5 m

## Commercial data

Item number	1402448
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF02
Product key	AF1BJI
GTIN	4046356616058
Weight per piece (including packing)	46.6 g
Weight per piece (excluding packing)	57.5 g
Customs tariff number	85444290
Country of origin	PL

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## Technical data

### Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	Ethernet
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Interfaces

Signal type/category	Ethernet, 100 Mbps
	PROFINET, 100 Mbps
	EtherCAT®, 100 Mbps

### Signaling

Status display	no
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### Electrical properties

Nominal voltage $U_N$	30 V AC
	30 V DC
Nominal current $I_N$	3 A
Transmission medium	Copper
Transmission speed	100 Mbps
Transmission characteristics (category)	CAT5

### Material specifications

Flammability rating according to UL 94	HB
Material for screw connection	Zinc die-cast, nickel-plated

### Connector

#### Connection 1

Type	Plug straight M8 / IP67
Number of positions	4 (4)
Coding type	A (Standard)
Shielded	yes
Handle color	black
Material	CuSn (Contact)
	Ni/Au (Contact surface)

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	TPU GF (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)
	CuZn (nickel-plated) (Screw connection)
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
Tightening torque	0.2 Nm
Degree of protection	IP67
Ambient temperature (operation)	-25 °C ... 90 °C

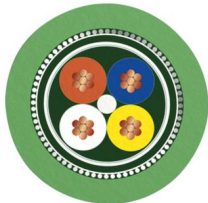
## Connection 2

Type	Plug straight M8 / IP67
Number of positions	4 (4)
Coding type	A (Standard)
Shielded	yes
Handle color	black
Material	CuSn (Contact)
	Ni/Au (Contact surface)
	CuZn (nickel-plated) (Screw connection)
	TPU GF (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
Tightening torque	0.2 Nm
Degree of protection	IP67
Ambient temperature (operation)	-25 °C ... 90 °C

## Cable/line

Cable length	0.5 m
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## PROFINET PVC stranded CAT5 [93B]

Dimensional drawing	
UL AWM Style	21695 (80 °C / 600 V)
Number of positions	4
Shielded	yes
Cable type	PROFINET PVC stranded CAT5 [93B]
Conductor structure	1x4xAWG22/7, SF/TQ
AWG signal line	22
Conductor cross section	4x 0.34 mm <sup>2</sup>

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Wire diameter incl. insulation	1.5 mm ±0.1 mm
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	white, yellow, blue, orange
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Nominal voltage, cable	≤ 600 V
Test voltage Core/Core	2000 V ((50 Hz/1 min))
Test voltage Core/Shield	2000.00 V ((50 Hz/1 min))
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)
	UL 1685 (CSA FT 4)
	UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
Resistance to oil	OIL RES I according to UL 2256
Other resistance	UV resistant (according to UL 1581, Section 1200)
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-10 °C ... 70 °C (Cable, flexible installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67
	IP65/IP67/IP69K

## Standards and regulations

### M8

Standard designation	M8 connector
Standards/specifications	IEC 61076-2-104

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## Drawings

Dimensional drawing



M8 x 1 male plug, straight version

Schematic diagram



Pin assignment M8 plug, 4-pos., view male side

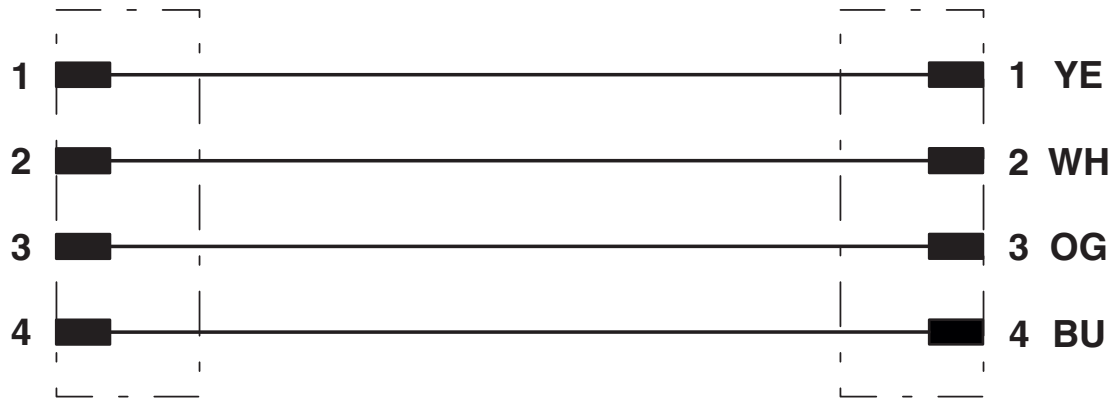
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Circuit diagram



Contact assignment of M8 plugs

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## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

### ETIM

ETIM 9.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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### EF3.0 Climate Change

CO2e kg	0.608 kg CO2e
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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)